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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,113	09/20/2001	Takeyoshi Dohi	505500-60	4713

7590 11/22/2004

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EXAMINER

PHILIPPE, GIMS S

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/937,113	Applicant(s) DOHI ET AL.	
	Examiner Gims S Philippe	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11182004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This is a first action in response to application no. 09/937,113 filed on November 20 2001 in which claims 1-6 are presented for examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Sudo et al. (US Patent no. 6,798,390).

Art Unit: 2613

Regarding claims 1 and 2, Sudo discloses a three-dimensional display device comprising a convex lens array where a plurality of convex lenses are arranged (See Sudo's Abstract, fig. 51, item 75, and col. 21, lines 25-29), an image display means arranged on or near a focal plane of said convex lens array (See fig. 3, item 1, and col. 8, lines 45-59), an operating means to calculate only the farthest point from said image display means among points intersecting an object image to be displayed determined by said operating means including not only points on the surface but also in the depth direction of the object (See Sudo col. 11, lines 35-67, and col. 12, lines 10-14), on a light starting from a pixel on said image display means passing through only the center of the curvature of the convex surface of a plurality of said respective convex lens among lights heading for a plurality of said convex lenses and heading toward said object image to be displayed in the predetermined three-dimensional space (See Sudo col. 9, lines 16-44), and an image controlling means for instructing to display corresponding pixels on said image display means based on the image information calculated by said operating means (See Sudo col. 12, lines 27-40).

As per claim 3, Sudo further discloses a three-dimensional display device according to wherein a plurality of said image display means are respectively arranged for a plurality of said lenses or for a plurality of said pin holes (See Sudo fig. 35, items 19), and said three-dimensional image display device comprises a plurality of said image display means and a plurality of said convex lenses or comprises a plurality of said image display means and a plurality of said pin holes (See Sudo col. 17, lines 9-36).

Art Unit: 2613

As per claim 4, Sudo further provides a plurality of the image display devices arranged for one convex lens array (See Sudo fig. 20-30, items 20 and 20a).

As per claims 5-7, Sudo further discloses a three-dimensional display device according to, wherein a diffusing plate is arranged between a point determined by lines from respective pixels of said image display means and passed through the center points of the curvatures of the convex surfaces of a plurality of said convex lenses or said pin holes intersect each other and a position where observer's eyes are located (See fig. 27, items 4, fig. 40, items, 150, 150a, col. 22, lines 44-63, and col. 16, lines 11-24).

A per claim 8, Sudo further suggest providing a moving picture displayed in said predetermined three-dimensional space based on the successive calculation by said operating means and simultaneous successive instructions from said controlling means (See Sudo col. 1, lines 8-15).

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uomori (US Patent no. 5801760) teaches stereoscopic image pickup and display apparatus.

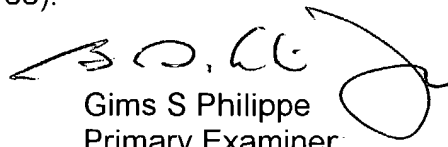
Art Unit: 2613

Allio (US Patent no. 6262743) teaches autostereoscopic image acquisition method and system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S Philippe whose telephone number is (703) 305-1107. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on (703) 305-4780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gims S Philippe
Primary Examiner
Art Unit 2613

GSP

November 17, 2004